

## DETAILED ACTION

1. Claims 1-37 are pending in this action.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 18, 29-30 and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Radia et al., US 5,922,049 (hereinafter Radia).

For claim 18, Radia teaches:

A method to support detecting operations performed by a host computer (col. 5, lines 8-13 and 28-37), the method comprising:

providing the host computer access to the network through a network interface (col. 4, lines 1-2 and 6-7);

forwarding a network message transmitted to the host computer from a node in the network through the network interface, the network message including a command for execution by the host computer (col. 4, lines 6-7, router 106 passes messages between network entities);

after forwarding the network message to the host computer, monitoring communications transmitted from the host computer through the network interface to identify whether the host computer executes the command in the network message (col. 5, lines 8-13 and 28-37).

For claim 29, Radia discloses:

A computer system supporting access to a network (col. 4, lines 15-16), the computer system including:

a processor (col. 4, line 16);

a memory unit that stores instructions associated with an application executed by the processor (col. 4, line 17);

a communication interface that supports communication with nodes in the network (col 4, lines 19-20); and

an interconnect coupling the processor, the memory unit, and the communication interface, enabling the computer system to execute the application and perform operations of:

providing the host computer access to the network through a network interface (col 4, lines 19-20);

forwarding a network message transmitted to the host computer from a node in the network through the network interface, the network message including a command to initiate reconfiguration of the host computer for further communications through the network interface (col. 4, lines 6-7);

after forwarding the network message to the host computer, monitoring communications transmitted from the host computer through the network interface to identify whether the host computer initiates reconfiguration of the host computer based on execution of the network message (col. 5, lines 8-13 and 28-37); and

in response to detecting that the host computer does not initiate reconfiguration of the host computer based on receipt of the network message, disabling the network interface utilized by the host computer to access the network (col. 5, lines 44-54).

For claim 30, Radia discloses:

A computer system as in claim 29, wherein providing the host computer access to the network through a network interface includes:

supporting communications between the host computer and the network through the network interface based on a connection oriented protocol (col. 4, lines 1-2 and 6-7).

For claim 32, Radia discloses:

A computer system as in claim 30, wherein the operation of disabling the network interface includes:

terminating a link between the host computer and the network at a link layer of a

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connection-oriented protocol supporting communications between the host computer and the network through the network interface (col. 5, lines 44-54).

For claim 33, Radia discloses:

A computer system as in claim 29 further performing operations of:  
identifying that the network message is a reconfigure command transmitted from a configuration server through the network interface to the host computer, the network message transmitted by the configuration server to initiate reconfiguration of the host computer (col. 5, lines 8-13 and 28-37).

For claim 34, Radia discloses:

A computer system as in claim 33, wherein the operation of identifying that the network message is a reconfigure command includes:  
detecting that the network message is a DHCPFORCERENEW (Dynamic Host Control Protocol Force Renew) message transmitted from the configuration server to the host computer, the configuration server attempting to initiate reconfiguration of a network address of the host computer via the network message (Radia, col. 5, lines 8-13 and 28-37).

***Claim Rejections - 35 USC § 103***

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7 and 19-25, 31 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radia in view of Ho, US 2003/0120818 .

For claim 1, Radia discloses:

A method for reconfiguring a host computer (Abstract), the method comprising:  
enabling the host computer to access a network through a network interface (col. 4, lines 1-2, client systems 102; col. 4, lines 6-7, router 106);  
intercepting a network message i) received from over the network and ii) destined for receipt by the host computer through the network interface (col. 5, lines 28-37, router 106 intercepts messages transmitted by DHCP server 110);  
and  
in response to intercepting the network message, disabling the network interface (col. 5, lines 44-54, router 106 updates routing tables with DHCP assigned IP).

Radia does not disclose the limitation "to prompt the host computer to perform a reconfiguration routine."

However, Ho discloses a client NDIS miniport driver which forces a client TCP stack to update its IP address in response to a new IP being assigned by a network

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DHCP server or router table update ([0032]). Radia and Ho are analogous art because both are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Radia with a client-side IP address update routine, as taught by Ho, because this modification allows for a client to make use of a new IP address assigned to it by a network server.

For claim 2, the combination of Radia and Ho discloses:

A method as in claim 1, wherein disabling the network interface includes:  
terminating a link between the host computer and the network at a link layer of a connection-oriented protocol supporting communications between the host computer and the network through the network interface (Radia, col. 5, lines 44-54, logical connection lost between host and network interface after routing table updated).

For claim 3, the combination of Radia and Ho discloses:

A method as in claim 1 further comprising:  
identifying that the network message is a reconfigure command transmitted from a configuration server through the network interface to the host computer, the network message transmitted by the configuration server to initiate reconfiguration of the host computer (Radia, col. 5, lines 8-13 and 28-37,

disclosure of the elements of DHCP messages and router 106 analysis of received messages).

For claim 4, the combination of Radia and Ho discloses:

A method as in claim 3, wherein identifying that the network message is a reconfigure command includes:

detecting that the network message is a DHCPFORCERENEW (Dynamic Host Control Protocol Force Renew) command transmitted from the configuration server to the host computer, the configuration server attempting to initiate reconfiguration of the host computer based on the host computer executing the DHCPFORCERENEW command (Radia, col. 5, lines 8-13 and 28-37).

For claim 5, the combination of Radia and Ho discloses:

A method as in claim 1, wherein disabling the network interface prompts the host computer to initiate a request for an assignment of a new network address supporting further communications through the network interface (Ho, [0032]).

For claim 6, the combination of Radia and Ho discloses:

A method as in claim 1 further comprising:

monitoring communications including commands received from over the network and destined for receipt by the host computer through the network interface (Radia, col. 5, lines 8-13 and 28-37); and

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wherein disabling the network interface includes temporarily disabling a link supporting communications from the host computer through the network interface to deny the host computer access to the network (Radia, col. 5, lines 44-54), denial of access to the network prompting the host computer to initiate reconfiguration of the host computer for further communications through the network interface (Ho, [0032]).

For claim 7, the combination of Radia and Ho discloses:

A method as in claim 1, wherein disabling the host computer includes: temporarily terminating an electronic signal otherwise transmitted on a communication link from the network interface to the host computer to maintain a connection between the host computer and the network (Radia, col. 5, lines 44-54), termination of the electronic signal causing the host computer to initiate a routine to re-establish another communication link through the network interface to access the network (Ho, [0032]).

For claim 19, Radia discloses:

A computer system supporting access to a network (col. 4, lines 15-16, disclosure router 106 is a computer system), the computer system including:  
a processor (col. 4, line 16, processor 204);  
a memory unit that stores instructions associated with an application executed by the processor (col. 4, lines 17, memory 206)  
a communication interface that supports communication with nodes in the



network (col. 4, lines 19-20, I/O includes network adapters); and  
an interconnect coupling the processor, the memory unit, and the  
communication interface, enabling the computer system to execute the  
application and perform operations of:

enabling the host computer to access a network through a network  
interface (col. 4, lines 19-20);

intercepting a network message i) received from over the network  
and ii) destined for receipt by the host computer through the network  
interface (col. 5, lines 28-37)

Radia does not disclose the limitation “in response to intercepting the network message, disabling the network interface to prompt the host computer to perform a reconfiguration routine”.

However, Ho discloses a client NDIS miniport driver which forces a client TCP stack to update its IP address in response to a new IP being assigned by a network DHCP server or router table update ([0032]). Radia and Ho are analogous art because both are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Radia with a client-side IP address update routine, as taught by Ho, because this modification allows for a client to make use of a new IP address assigned to it by a network server.

For claim 20, the combination of Radia and Ho discloses:

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A computer system as in claim 19, wherein the operation of disabling the network interface includes:

terminating a link between the host computer and the network at a link layer of a connection-oriented protocol supporting communications between the host computer and the network through the network interface (Radia, col. 5, lines 44-54).

For claim 21, the combination of Radia and Ho discloses:

A computer system as in claim 19 further performing an operation of:  
identifying that the network message is a reconfigure command transmitted from a configuration server through the network interface to the host computer, the network message transmitted by the configuration server to initiate reconfiguration of the host computer (Radia, col. 5, lines 8-13 and 28-37).

For claim 22, the combination of Radia and Ho discloses:

A computer system as in claim 21, wherein the operation of identifying that the network message is a reconfigure command includes:  
detecting that the network message is a DHCPFORCERENEW (Dynamic Host Control Protocol Force Renew) command transmitted from the configuration server to the host computer, the configuration server attempting to initiate reconfiguration of the host computer based on the host computer executing the DHCPFORCERENEW command (Radia, col. 5, lines 8-13 and 28-37).

For claim 23, the combination of Radia and Ho discloses:

A computer system as in claim 19, wherein disabling the network interface prompts the host computer to initiate a request for an assignment of a new network address supporting further communications through the network interface (Ho, [0032]).

For claim 24, the combination of Radia and Ho discloses:

A computer system as in claim 19 further performing operations of:  
monitoring communications including commands received from over the network and destined for receipt by the host computer through the network interface (Radia, col. 5, lines 8-13 and 28-37); and  
wherein disabling the network interface includes temporarily disabling a link supporting communications from the host computer through the network interface to deny the host computer access to the network (Radia, col. 5, lines 44-54),  
denial of access to the network prompting the host computer to initiate reconfiguration of the host computer for further communications through the network interface (Ho, [0032]).

For claim 25, the combination of Radia and Ho discloses:

A computer system as in claim 19, wherein the operation of disabling the host computer includes:  
temporarily terminating an electronic signal otherwise transmitted on a

communication link from the network interface to the host computer to maintain a connection between the host computer and the network (Radia, col. 5, lines 44-54), termination of the electronic signal causing the host computer to initiate a routine to re-establish another communication link through the network interface to access the network (Ho, [0032]).

For claim 31, Radia discloses:

“A computer system as in claim 30”.

Radia does not disclose the limitation “wherein the operation of disabling the network interface prompts the host computer to initiate reconfiguration of the host computer for further communications through the network interface.”

However, Ho discloses a client NDIS miniport driver which forces a client TCP stack to update its IP address in response to a new IP being assigned by a network DHCP server or router table update ([0032]). Radia and Ho are analogous art because both are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Radia with a client-side IP address update routine, as taught by Ho, because this modification allows for a client to make use of a new IP address assigned to it by a network server.

For claim 35, Radia discloses

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A computer system as in claim 30, however, Radia does not disclose wherein the operation of disabling the network interface prompts the host computer to initiate a request for an assignment of a new network address supporting further communications through the network interface. Ho discloses the operation of disabling the network interface prompts the host computer to initiate a request for an assignment of a new network address supporting further communications through the network interface. (Ho, [0032]). Radia and Ho are analogous art because both are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Radia with a client-side IP address update routine, as taught by Ho, because this modification allows for a client to make use of a new IP address assigned to it by a network server.

For claim 36, Radia discloses:

A computer system coupled to a network that supports transmission of data (Radia, col. 4, lines 15-16), the computer system including:  
means for enabling the host computer to access a network through a network interface (Radia, col. 4, lines 1-2 and 6-7);  
means for intercepting a network message i) received from over the network and ii) destined for receipt by the host computer through the network interface (Radia, col. 5, lines 28-37); and

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in response to intercepting the network message, means for disabling the network interface (Radia, col. 5, lines 44-54). However, Radia does not disclose prompting the host computer to perform a reconfiguration routine. Ho, however discloses a client NDIS miniport driver which forces a client TCP stack to update its IP address in response to a new IP being assigned by a network DHCP server or router table update ([0032]).

Radia and Ho are analogous art because both are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Radia with a client-side IP address update routine, as taught by Ho, because this modification allows for a client to make use of a new IP address assigned to it by a network server.

For claim 37, Radia discloses:

A computer program product including a computer-readable medium having instructions stored thereon for processing data information (Radia, col. 4, lines 15-21), such that the instructions, when carried out by a processing device, enable the processing device to perform the steps of:

enabling the host computer to access a network through a network interface (Radia, col. 4, lines 1-2 and 6-7);

intercepting a network message i) received from over the network and ii)

destined for receipt by the host computer through the network interface (Radia, col. 5, lines 28-37); and

in response to intercepting the network message, disabling the network interface (Radia, col. 5, lines 44-54). Radia does not disclose prompting the host computer to perform a reconfiguration routine. However, Ho discloses a client NDIS miniport driver which forces a client TCP stack to update its IP address in response to a new IP being assigned by a network DHCP server or router table update ([0032]). Radia and Ho are analogous art because both are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Radia with a client-side IP address update routine, as taught by Ho, because this modification allows for a client to make use of a new IP address assigned to it by a network server.

6. Claims 8-10 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radia in view of Ho, as applied to claims 1 and 19, and further in view of Carpenter et al., US 2002/0059429 (hereinafter Carpenter).

For claim 8, the combination of Radia and Ho discloses:

“A method as in claim 1, wherein disabling the network interface causes the host computer to detect that the host computer is no longer able to communicate through the

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network interface, the host computer, in response, initiating a routine to re-establish a link through the network interface to access the network” (Ho, [0032]).

The combination of Radia and Ho does not disclose the limitation of initiating a new connection “via a different network service than used to access the network prior to the disabling of the network interface”.

However, Carpenter discloses a client agent, residing on a network client, that maintains a record of network connections, both successful and not, which it utilizes in making decisions on network communications paths to establish ([0026]). Radia, Ho and Carpenter are analogous art because all are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the combined teachings of Radia and Ho with a client-side routine that can establish a network connection through a different path, as taught by Carpenter, because this modification allows a client to make intelligent routing decisions that provide better network availability to it (Carpenter, [0010]).

For claim 9, the combination of Radia and Ho do not disclose

identifying that the host computer supports a reconfiguration command associated with the network message; and in lieu of disabling the network interface, forwarding the network message to the host computer that, in turn, initiates reconfiguration of the host computer based on execution of the reconfiguration command.



However, Carpenter discloses identifying that the host computer supports a reconfiguration command associated with the network message (Carpenter, [0030], lines 14-23, disclosure of management platform 310 communicating with client agents to retrieve their settings and records); in lieu of disabling the network interface, forwarding the network message to the host computer that, in turn, initiates reconfiguration of the host computer based on execution of the reconfiguration command (Carpenter, [0030], lines 24-26, disclosure of platform 310's ability to push policy information and other commands to agents).

Radia, Ho and Carpenter are analogous art because all are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the combined teachings of Radia and Ho with the teachings of Carpenter, because this modification allows a client to make intelligent routing decisions that provide better network availability to it (Carpenter, [0010]).

For claim 10, the combination of Radia and Ho discloses:

A method as in claim 1 further comprising:  
receiving a second network message through the network interface from over the network (Radia, col. 5, lines 28-37);  
identifying that the second network message includes a reconfiguration command directed to second host computer (Radia, col. 5, lines 8-13 and 28-37).

However, the combination of Radia and Ho do not disclose forwarding the other network message to the second host computer which executes the reconfiguration command to reconfigure the second host computer with a new network address. Carpenter, however, discloses forwarding the other network message to the second host computer which executes the reconfiguration command to reconfigure the second host computer with a new network address (Carpenter, [0030], lines 24-26).

For claim 26, the combination of Radia and Ho discloses: Radia, Ho and Carpenter are analogous art because all are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the combined teachings of Radia and Ho with the teachings of Carpenter, because this modification allows a client to make intelligent routing decisions that provide better network availability to it (Carpenter, [0010]).

A computer system as in claim 19, wherein the operation of disabling the network interface causes the host computer to detect that the host computer is no longer able to communicate through the network interface, the host computer, in response, initiating a routine to re-establish a link through the network interface to access the network (Ho, [0032]).

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The combination of Radia and Ho does not disclose the limitation of initiating a new connection “via a different network service than used to access the network prior to the disabling of the network interface”.

However, Carpenter discloses a client agent, residing on a network client, that maintains a record of network connections, both successful and not, which it utilizes in making decisions on network communications paths to establish ([0026]). Radia, Ho and Carpenter are analogous art because all are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the combined teachings of Radia and Ho with a client-side routine that can establish a network connection through a different path, as taught by Carpenter, because this modification allows a client to make intelligent routing decisions that provide better network availability to it (Carpenter, [0010]).

For claim 27, the combination of Radia, Ho does not disclose:

identifying that the host computer supports a reconfiguration command associated with the network message, and in lieu of disabling the network interface, forwarding the network message to the host computer that, in turn, initiates reconfiguration of the host computer based on execution of the reconfiguration command.

Carpenter discloses identifying that the host computer supports a reconfiguration command associated with the network message (Carpenter, [0030], lines 14-23);

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in lieu of disabling the network interface, forwarding the network message to the host computer that, in turn, initiates reconfiguration of the host computer based on execution of the reconfiguration command (Carpenter, [0030], lines 24-26).

Radia, Ho and Carpenter are analogous art because all are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the combined teachings of Radia and Ho with the teachings of Carpenter, because this modification allows a client to make intelligent routing decisions that provide better network availability to it (Carpenter, [0010]).

For claim 28, the combination of Radia and Ho discloses:

A computer system as in claim 19 further performing operations of:

receiving a second network message through the network interface from over the network (Radia, col. 5, lines 28-37); and identifying that the second network message includes a reconfiguration command directed to second host computer (Radia, col. 5, lines 8-13 and 28-37). Radia and Ho do not disclose forwarding the other network message to the second host computer which executes the reconfiguration command to reconfigure the second host computer with a new network address. However, Carpenter discloses forwarding the other network message to the second host computer which executes the reconfiguration command to reconfigure the second host computer with a new network address (Carpenter, [0030], lines 24-26).

Radia, Ho and Carpenter are analogous art because all are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the combined teachings of Radia and Ho with the teachings of Carpenter, because this modification allows a client to make intelligent routing decisions that provide better network availability to it (Carpenter, [0010]).

7. Claims 11-12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radia in view of Carpenter.

For claim 11, Radia discloses:

A method for reconfiguring a host computer to access a network (Abstract), the method comprising:

providing the host computer access to the network through a network interface (col. 4, lines 1-2 and 6-7);

forwarding a network message transmitted to the host computer from a node in the network through the network interface, the network message including a command to initiate reconfiguration of the host computer for further communications through the network interface (col. 4, lines 6-7);

after forwarding the network message to the host computer, monitoring communications transmitted from the host computer through the network interface to identify whether the host computer initiates reconfiguration of the

host computer based on execution of the network message (col. 5, lines 8-13 and 28-37, disclosure of router 106 analyzing packets passing through it)

Radia does not disclose the limitation “in response to detecting that the host computer does not initiate reconfiguration of the host computer based on receipt of the network message, disabling the network interface utilized by the host computer to access the network.”

However, Carpenter discloses a client agent, residing on a network client, that maintains a record of network connections, both successful and not, which it utilizes in making decisions on network communications paths to establish ([0026]). Moreover, Carpenter discloses platform 310's ability to push policy information and other commands to agents ([0030], lines 24-26). Radia and Carpenter are analogous art because both are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Radia with a client-side routine that can establish a network connection through a different path, as taught by Carpenter, because this modification allows a client to make intelligent routing decisions that provide better network availability to it (Carpenter, [0010]).

For claim 12, the combination of Radia and Carpenter discloses:

A method as in claim 11, wherein providing the host computer access to the network through a network interface includes:

supporting communications between the host computer and the network through

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the network interface based on a connection oriented protocol (Radia, col. 4, lines 21-22).

For claim 14, the combination of Radia and Carpenter discloses:

A method as in claim 12, wherein disabling the network interface includes:  
terminating a link between the host computer and the network at a link layer of a connection-oriented protocol supporting communications between the host computer and the network through the network interface (Radia, col. 5, lines 44-54).

For claim 15, the combination of Radia and Carpenter discloses:

A method as in claim 11 further comprising:  
identifying that the network message is a reconfigure command transmitted from a configuration server through the network interface to the host computer, the network message transmitted by the configuration server to initiate reconfiguration of the host computer (Radia, col. 5, lines 8-13 and 28-37).

For claim 16, the combination of Radia and Carpenter discloses:

A method as in claim 15, wherein identifying that the network message is a reconfigure command includes:  
detecting that the network message is a DHCPFORCERENEW (Dynamic Host Control Protocol Force Renew) message transmitted from the configuration

server to the host computer, the configuration server attempting to initiate reconfiguration of a network address of the host computer via the network message (Radia, col. 5, lines 8-13 and 28-37).

8. Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radia in view of Carpenter, as applied to claims 11 and 12 and further in view of Ho.

For claim 13, the combination of Radia and Carpenter discloses:

“A method as in claim 12”

The combination of Radia and Carpenter does not disclose the limitation “wherein disabling the network interface prompts the host computer to initiate reconfiguration of the host computer for further communications through the network interface.”

However, Ho discloses a client NDIS miniport driver which forces a client TCP stack to update its IP address in response to a new IP being assigned by a network DHCP server or router table update ([0032]). Radia, Carpenter and Ho are analogous art because both are from the field of computer network address assignment and routing.

It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Radia and Carpenter with a client-side IP address update routine, as taught by Ho, because this modification allows for a client to make use of a new IP address assigned to it by a network server.



For claim 17, the claim is rejected for the same reasons as claim 13 above. In addition, combination of Radia, Carpenter and Ho discloses:

A method as in claim 12, wherein disabling the network interface prompts the host computer to initiate a request for an assignment of a new network address supporting further communications through the network interface (Ho, [0032]).

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Pugaczewski et. al, (US 6903755): A network management system and graphical user interface for configuring a network connection between first and second service access points

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLAYTON WILLIAMS whose telephone number is (571)270-3801. The examiner can normally be reached on M-F (8 a.m. - 5 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nabil El-Hady can be reached on 571-272-3963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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CRW

01/04/08

/Nabil El-Hady, Ph.D, M.B.A./

Supervisory Patent Examiner, Art Unit 4152